

## **Implementation of the America Invents Act and its Implications to Global Trade**

By

John Paul Handrigan<sup>1</sup>

### **Abstract**

The *America Invents Act* was signed into law on September 16, 2011, by President Barack Obama. Since its enactment, it has been deemed the most significant change to the United States' patent system for almost 60 years. The need for such an amendment was largely sold on the basis of harmonizing the US' patent system with that of the rest of the world, including the European Union, Japan and Canada. Some of the changes that have given rise to the most discussion include the: transition from a first-to-invent to a first-to-file patent system; new procedures for challenging business method patents; and new rules for joinder of multiple defendants. All of these changes have potentially direct and indirect effects on United States' innovative capacity, economy and its position in the global market. This paper provides a general overview of the *America Invents Act*, the changes to the patent system, and how these changes, although only recently enacted, affect the US economy and its global trade. It concludes with a recommendation for the US to closely study the impacts of the AIA on small businesses, given their important role in driving innovation and productivity, and supporting the US economy.

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<sup>1</sup> John Paul Handrigan is a student of the Master of Technology Management program at the Marine Institute of Memorial University of Newfoundland in St. John's, Newfoundland and Labrador, Canada. He currently resides in Ottawa, Ontario, Canada.

## I. Introduction

The *Leahy-Smith America Invents Act*, more commonly known as the *America Invents Act* (AIA), was signed into law by President Barack Obama on September 16, 2011. It marked the first major change to the United States' (US) patent system in over 60 years. One of the most important changes brought on through the AIA, is the way in which patents are awarded in the US. The system now awards patents not to those inventors who are "first-to-invent" (FTI), but to those that are "first-to-file" (FTF).<sup>2</sup> Other important changes include new administrative processes that help facilitate challenges to patent validity and new rules for joinder of accused infringers (i.e., to potentially limit patent trolling).<sup>3</sup>

### I.1. A First-to-File Patent System

For over 200 years, the US patent system has followed the approach of awarding patents to those inventors who were considered FTI. Before making the switch with the AIA, the US was the only patent-issuing state that was still following the FTI patent system.<sup>4</sup> In making the switch from FTI to FTF, the US is essentially harmonizing their patent system with practices found in the rest of the world, including Canada. In fact, Canada put in place a FTF system back in 1989.<sup>5</sup> The new patent system has implications for the inventor, as the new system is practically a race to have your patent application successfully filed. In other words, the FTF system will consider the first-inventor-to-file based on the effective filing data of a patent application, with the pertinent claims, regardless of whether or not the one filing the application is the original

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<sup>2</sup> A. F. Kanski, *Patenting Stem Cell Technologies: Making a Claim* (Morgan & Claypool Life Science Publishers, 2013) at 1.

<sup>3</sup> Tim Hagan, *Your Guide to the America Invents Act (AIA)* (2012), online: <<http://www.dinsmore.com/files/Event/032b60e6-a72b-4050-b60f-f55994551a2a/Presentation/EventAttachment/7d30c90e-4bb0-4b96-9164-f6c3714216d4/AIA.pdf>>.

<sup>4</sup> Wendy H. Schacht and John R Thomas, *The Leahy-Smith America Invents Act: Innovation Issues*, CRS Report for Congress, Congressional Research Service, Washington, DC [Schacht].

<sup>5</sup> Y. Gendreau, *An Emerging Intellectual Property Paradigm: Perspectives from Canada* (Edward Elgar Publishing, Incorporated, 2009) at 97.

inventor. The new patent system officially came into effect on March 16, 2013, and with it, brought several arguments for and against it to the forefront.<sup>6</sup>

### *I.2. New Administrative Procedure for Business Method Patents*

Another important change to the US patent system, brought about with the AIA, is a new administrative procedure that helps facilitate challenges to patent validity. The new procedure is directly applicable to what are known as business method patents, which offer exclusivity to a person to do business in a specific way.<sup>7</sup> As part of the new process, a post grant review for business method patents has been created and could see these types of patents undergo ongoing invalidity challenges in proceedings with the Patent Office.<sup>8</sup>

Business method patents are often considered to be broad patents with far-reaching interpretations. SAP, a software company, was the first company to rely on these new procedures in having a business patent overturned based on the new rules outlined in the AIA. In this particular case, there was \$345 million at stake for SAP.<sup>9</sup>

### *I.3. Changes to joinder of multiple defendants rules in patent infringement cases*

The AIA also aims to stifle the activities of non-practicing entities (NPE), or what are commonly known as ‘patent trolls’. The strategy of these NPEs is to put together a block of patents with the overall purpose to prevent other companies from developing their own innovations. Another strategy is to acquire these block patents, and to use these patents against companies that are actively selling products or services. In recent years, NPEs have become increasingly more

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<sup>6</sup> D. E. Bouchoux, *Intellectual Property: The Law of Trademarks, Copyrights, Patents, and Trade Secrets*, 4th ed (2012) at 452.

<sup>7</sup> William Fisher and Geri Zollinger, *Business Method Patents Online* (2001), online: <<http://cyber.law.harvard.edu/ilaw/BMP/>>.

<sup>8</sup> F. Scott Kieff, *Patent Reform Goes Haywire* (2011), online: <<http://www.hoover.org/publications/defining-ideas/article/81961>>.

<sup>9</sup> Ingrid Lunden, *SAP Becomes First To Test New Patent Rules In The America Invents Act, Gets Window Of Hope In \$345M Versata Case*, online: <<http://techcrunch.com/2013/06/12/sap-becomes-first-to-test-new-patent-rules-in-the-america-invents-act-gets-window-of-hope-in-345m-versata-case/>>.

aggressive in using the legal system to bring about injunctions on other companies. This could prevent a company from legitimately using one of their innovations, until the matter is resolved. In some cases, the NPEs are seeking compensation, and once paid, they remove the injunction.<sup>10</sup> In the US, it is estimated that there are over eight hundred identified patent trolls, which is fairly significant.<sup>11</sup> The AIA includes provisions that limit NPEs from joining together multiple defendants into one court proceeding. By doing so, the AIA could potentially deter patent trolling.

#### *I.4. AIA implications for economic growth and global trade*

The changes outlined in Sections I.1 to I.3 are significant for the US patent system. Not only do they help harmonize the US patent system with the rest of the world, but they have important implications for innovation and global trade. It is common belief by experts that patent ownership gives inventors the incentive to innovate, which in turn gives rise to technological advancements that fuel the growth of the economy.<sup>12</sup> In the following sections, I will explore how the AIA affects, either positively or negatively, economic growth and global trade.

## **II. Literature Review**

### *II.1. Lobbying Activities for/against the AIA*

When examining new acts or regulations, it is sometimes beneficial to look at the lobbying activities that surround them. The First Street Research Group found that the AIA brought with it significant lobbying activity. The researchers found that in 2011, some three hundred organizations spent a combined \$400 million on lobbying the AIA. Comparing these monetary

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<sup>10</sup> D. Cox and J. Rigby, *Innovation Policy Challenges for the 21st Century* (Taylor & Francis, 2013) at 98.

<sup>11</sup> B. Berman, *From Assets to Profits: Competing for IP Value and Return* (Wiley, 2008) at 7.

<sup>12</sup> Schacht, *supra* note 4.

amounts to the total cost of lobbying in 2010, \$3.51 billion, it becomes evident that the lobbying of AIA made up a large party of all lobbying activities for that year.<sup>13</sup>

First Street Research Group's report indicated that the main organizations that lobbied the AIA included the Independent Community Bankers of America, Security Industry and Financial Markets Association, AT&T, Yahoo!, Hewlett-Packard and Research in Motion. Given the significant amount of money that was invested in lobbying, and the large organizations lobbying the bill, it is clear that the AIA carried significant importance as a piece of legislature.<sup>14</sup>

Snow found that those lobbying for the legislative changes were claiming that the AIA would improve innovation in the United States as it would bring about changes to streamline the process, reduce patent litigations, and harmonize the US patent system with the rest of the world. This in turn, would effectively facilitate the process of seeking patent protection across several borders.<sup>15</sup>

According to Wilson<sup>16</sup>, many universities lobbied against the AIA. These universities had concerns with the change from FTI to FTF. During legislative negotiations, these academics compromised on the basis that an inventor is granted a twelve months grace period to talk or write publicly about their research and ideas before submitting a patent application. However, Wilson goes on to indicate that the United States Patent and Trade Office have since taken a narrow interpretation of the grace period to the peril of academia.

One of the major changes brought into effect with the AIA is the switch from a FTI to a FTF patent system. There were many arguments for and against this transition. Pedersen and

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<sup>13</sup> First Street Research Group, *Lobbying the America Invents Act* (2011), online: <<http://firststreetresearch.files.wordpress.com/2011/11/first-street-report-lobbying-the-america-invents-act.pdf>>.

<sup>14</sup> *Ibid.*

<sup>15</sup> Brandy Woods Snow, *How Will Changes to the Patent Laws Affect Your Business* (2013), online: <<http://www.columbiabusinesmonthly.com/View-Article/ArticleID/3946/The-America-Invents-Act.aspx>>.

<sup>16</sup> Megan R. Wilson, *Universities spar with administration over patent regulation* (2013), online: <<http://thehill.com/blogs/regwatch/lobbying/282019-universities-spar-with-administration-over-patent-regulation>>.

Braginsky highlight that the main advantage of moving from a FTI to a FTF patent system is that it improves the administration of patents.<sup>17</sup> Based on this statement, it is not hard to imagine that the introduction of FTF would reduce the need for lengthy disputes and information collection to determine the actual first inventor for an innovation. With the newly implemented system, it would simply require a comparison of patent application filing dates to see who filed first, and should be awarded the patent. In certain cases, it might require a closer look at prior art and their dates of publication, in order to verify the parameters of the grace period.

Pedersen and Braginsky go on to highlight the importance of harmonizing the US patent system with others, including Japan and Europe. They argue that this could help facilitate long range plans for an international treaty to create patent protection for those granted in any of these patent systems (i.e., US, Japan and Europe), which would have significant impacts on global trade between these countries and states.<sup>18</sup>

## II.2. Who benefits from a FTF patent system?

Many authors<sup>19, 20, 21, 22</sup> have argued that the FTF patent system is more beneficial to larger companies than small entrepreneurs. In general, these authors argue that larger companies have an advantage in that they are able to more quickly turn an invention into a valid patent application, or that they have more available funding to file a lot more patent applications than

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<sup>17</sup> Brad Pedersen and Vadim Braginsky, *Rush to the First-to-File Patent System in the United States: Is a Globally Standardized Patent Reward System Really Beneficial to Patent Quality and Administrative Efficiency*, *The* (2005), 7 Minn. JL Sci. & Tech. 757 at 760.

<sup>18</sup> *Ibid.*

<sup>19</sup> D. S. Abrams and R. Polk Wagner, *Poisoning the next apple? The America invents act and individual inventors* (2013), 65(3) *Stanford Law Review* 517 [Abrams].

<sup>20</sup> Ivy Tsui, *US Patent Reform Act of 2011 to Enact "First-to-File" System* (2011), online: <<http://www.iposgoode.ca/2011/02/us-patent-reform-act-of-2011-to-enact-%E2%80%9Cfirst-to-file%E2%80%9D-system/>>.

<sup>21</sup> Emily Micucci, *Patent Law Change To 'First To File' System Poses Hurdle For Entrepreneurs* (2013), online: <<http://www.wbjournal.com/article/20130401/PRINTEDITION/303299986/patent-law-change-to-first-to-file-system-poses-hurdle-for-entrepreneurs>>.

<sup>22</sup> L.C. Thurow, *Fortune Favors the Bold* (HarperCollins, 2009) at 174.

smaller companies. Abrams and Wagner<sup>23</sup> also highlight the fact that larger companies generally have access to more research and development resources (financial and human), which likely translates into them having capable patent attorneys on staff that can easily facilitate and maneuver the patent application process.

These same researchers (Abrams and Wagner) took their analysis a step further with an empirical study on the effects of the AIA on small entrepreneurs. Their study focussed mainly on the AIA's change of FTI to FTF. As part of their study, they related expected changes in the US with those that were witnessed in Canada when the FTF patent system came into effect in 1989. What these researchers found was somewhat contradictory to what others<sup>24, 25</sup> believed, indicating that a FTF patent system might actually benefit small companies – on the basis that they potentially deal with less bureaucracy than a large company.

Abrams and Wagner used historical patent data from the Canadian Intellectual Property Office and found that there was a significant drop in the number of patents granted to small inventors in Canada with the introduction of Canada's FTF patent system. One might argue that this simply means there might have been fewer, but higher quality patents being granted; however, the researchers found that no measurable changes in patent quality were observed since the introduction of FTF in Canada. The importance of small businesses and entrepreneurs for the US economy has been highlighted in Section IV of this report.

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<sup>23</sup> Abrams, *supra* note 19 at 4.

<sup>24</sup> T. Takenaka, *Patent Law and Theory: A Handbook of Contemporary Research* (Edward Elgar, 2008) at 405.

<sup>25</sup> Jeff Baughman, *America Invents Act – Impact on Patents for Small Business* (2012), online: <<http://spartanlawgroup.com/uncategorized-tab/america-invents-act-impact-on-patents-for-small-business-2>>.

### II.3. Issues with Business Method Patents

Business method patents, as outlined above, are used to protect a specific way of doing business. Prior to 1998, the United States Patent and Trademark Office (USPTO) did not consider business methods to be patentable. However, in *State Street Bank & Trust Co. v. Signature Financial Group Inc.*<sup>26</sup>, a decision was made by the United States Court of Appeals for the Federal Circuit to award a patent for a computer-based system of pooling mutual funds. This decision was controversial, and resulted in a seven-fold increase in the number of patents for business methods between 1998 and 2006.<sup>27</sup>

Under Section 18 of the AIA<sup>28</sup>, the act issues a transitional program for business method patents. In essence, this created a post grant review process for business method patents that would allow one of these patents to be challenged in a proceeding with the Patent Office. The general intent behind Section 18 is to limit poor quality business method patents, and to discourage the use of these patents by NPEs.<sup>29</sup>

Business method patents bring a certain degree of unpredictability to the US patent system, as a result of their sometimes broad and far-reaching patent claims. In fact, the uncertainty and unpredictability that these patents bring to the US patent system can be detrimental to the growth of the economy, and there are some subject matter experts that oppose business method patents on the grounds that they impede commercial activity.<sup>30</sup>

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<sup>26</sup> *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368 (Fed. Cir. 1998), online: <http://cyber.law.harvard.edu/property00/patents/StateStreet.html>.

<sup>27</sup> Stikeman Elliott, *Bilski applied: The start of the ripple effect* (2009), online: <http://www.canadiantechnologyiplaw.com/2009/01/articles/intellectual-property/patents-1/bilski-applied-the-start-of-the-ripple-effect/>.

<sup>28</sup> *Leahy-Smith America Invents Act 2011* (H.R. 1249).

<sup>29</sup> Michael R. Graif and John Hammond Robert Gunderman, *Challenging Business Method Patents Under Section 18 of the AIA* (2013), online: [http://www.patenttechnologies.com/images/AIA\\_Section\\_18\\_Business\\_Method\\_LM\\_Website.pdf](http://www.patenttechnologies.com/images/AIA_Section_18_Business_Method_LM_Website.pdf).

<sup>30</sup> J.H. Matsuura, *Managing Intellectual Assets in the Digital Age* (Artech House, 2003) at 18.

The risks of business method patents are real, and lie in the possibility that some financial institutions or businesses might be prevented by competitors or NPEs from carrying out their day-to-day business activities. It is for this reason, amongst others, that business method patents are generally not granted in many foreign countries, including the European Union and the United Kingdom.<sup>31</sup>

#### *II.4. Curtailing Patent Trolls with the AIA*

In addition to Section 18 of the AIA, NPEs were further targeted in another provision of the AIA. By limiting the joinder of multiple defendants rule for patent infringement cases, the AIA could potentially reduce the impacts of ‘patent trolls’. In other words, the AIA will no longer allow a plaintiff to join multiple defendants with different products together based on the notion that they are infringing the same patent. NPEs might not been keen on these changes, as joinder provisions enabled them to pool resources (financial and human), promote efficiency and easily coordinate a patent strategy.<sup>32</sup>

On September 15, 2011, a day before President Obama signed the AIA, over fifty patent infringement cases were filed in the US. This marked the largest filing of patent infringement cases in recent history, and it was no coincidence. Those filing the patent infringement cases were looking to avoid the new provisions to be brought into effect with the AIA.<sup>33</sup> In doing so, they effectively avoided the clause in the AIA that would limit their ability to join multiple defendants together in one suit, unless their patent claims arise “out of the same transaction,

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<sup>31</sup> Norton Rose, *Business method patents: A guide to understanding the risks and opportunities that business method patents present and strategies Financial Institutions can employ to gain from them* (2012), online: <<http://www.nortonrosefulbright.com/files/business-method-patents-pdf-246mb-72865.pdf>>.

<sup>32</sup> D. Brian Kacedon and John C. Paul Daniel C. Cooley, *Joinder of multiple defendants rejected under the America Invents Act when plaintiff alleged infringement by defendants involved in different transactions with different products* (2013), online: <http://www.lexology.com/library/detail.aspx?g=fa434d50-7279-4308-9aa5-5dc0dd5348cb> [Kacedon].

<sup>33</sup> Tracie L Bryant, *The America Invents Act: Slaying Trolls, Limiting Joinder* (2012), 25 Harv. J. Law & Tec 687 [Bryant] at 674.

occurrence, or series of transactions or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process.”<sup>34</sup> In other words, multiple defendants cannot be joined together unless their products are the same.<sup>35</sup>

Although it is too early to fully understand the impacts of this provision, it is anticipated that it will have broad effects on patent litigation, particularly those involving NPEs. The provision could facilitate the process of transferring cases, increasing the number of court cases involving NPEs, and requiring NPEs to have their patents scrutinized multiple times for validity (i.e., through multiple infringement cases with several defendants).<sup>36</sup>

## *II.5. Links between innovation, patents and global trade*

Moser found, with a caveat, that inventors in countries with an effective patent system tend to innovate more than those in countries without one. However, the author does indicate through their findings that inventors in countries without a patent system do tend to focus on areas where inventions can be protected through trade secrecy.<sup>37</sup> Additionally, Lerner found that countries who have taken the initiative to strengthen their patent system have encouraged inventors from other countries to seek patent protection in those countries.<sup>38</sup> These sources help demonstrate the positive impacts of a strong patent system on innovation. The intent of the AIA was to strengthen the US patent system by improving patent quality, putting questionable patents to the test, and curtailing the misuse of patents (e.g., patent trolling).<sup>39</sup>

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<sup>34</sup> *U.S. Patent Law*, 35 U.S.C. § 299(a)(1).

<sup>35</sup> *Kacedon*, *supra* note 32.

<sup>36</sup> *Bryant*, *supra* note 33 at 695.

<sup>37</sup> Petra Moser, *How do patent laws influence innovation? Evidence from nineteenth-century world fairs*, National Bureau of Economic Research No (2003).

<sup>38</sup> Josh Lerner, *Patent protection and innovation over 150 years*, National Bureau of Economic Research No (2002).

<sup>39</sup> William G. Barber, *A Centuries-Old System, and It Works* (2012), online: <<http://www.nytimes.com/roomfordebate/2012/10/10/does-the-law-support-inventors-or-investors/the-us-patent-system-works>>.

### **III. Research Methodology**

The purpose of this paper is to evaluate the effects of the recently enacted *Leahy-Smith America Invents Act* on global trade. An initial look at the major changes to the US' patent system will help set the stage for analysis. Of the many changes that were introduced, those that will be discussed in detail include the implications of a FTF patent system; new administrative processes that facilitate challenges to patent validity, and new rules for joinder of accused infringers. These changes were highlighted as important and because they have links to innovation and trade.

As the AIA has only been recently enacted, the amount of peer-reviewed literature on the subject is limited. Given this reality, the analysis will rely on some means of extrapolating the impacts of the AIA on global trade. For instance, if a FTF patent system streamlines the patent system and subsequently increases innovation – then will increased innovation bring about more global trade? These are the types of extrapolations that will be required in this paper. Alternatively, an analysis of other patent systems (including Canada) could provide some insight into how the reformed patent system in the US will perform.

### **IV. Analysis/Discussion**

The significant lobbying activity that accompanied the AIA highlights a few key points. First of all, the large amount of money spent on lobbying activities (i.e., \$400 million) indicates that there was likely a need and desire to modernize the US' patent system. It is also important to note the organizations and companies that were involved in these activities. Fairly large companies, including Hewlett-Packard and AT&T, might indicate that they had a vested interest in seeing the AIA through. Perhaps, this indicates that the AIA might be more beneficial to larger entities as opposed to small to medium sized entrepreneurs.

Based on the articles highlighted in Section II (Literature Review), it is clear that the AIA might negatively affect small entrepreneurs and businesses. In the US, small businesses employ at least half of the country's population.<sup>40</sup> Small businesses also benefit the US (and other countries), as they are hotbeds for innovation; provide equal working opportunities to women, minorities and the poor; build social capital; and contribute to a country's economic diversity. A small business' ability to innovate is important in driving the US economy. It is estimated that small businesses create fifty-five percent of all innovations in the US. Additionally, small businesses create and receive more patents per sales dollar than do large firms.<sup>41</sup> Other authors<sup>42,43</sup> have found that small and medium enterprises (SME) are critical players in fueling the global economic recovery, given their ability to drive productivity, innovation and employment opportunities in both developed and developing nations. In some industries, it is critical that small businesses expand into the global market. Otherwise, they will join the same fate as thirty to fifty percent of other small businesses that have failed within the first three years of their operations.<sup>44</sup>

Not only are small businesses' ability to enter into the global market inhibited by a lack of human capital; current diversified and multi-dimensional economic system; resource specialization; and global niche markets, but the AIA seems to add a further inhibitor into the mix – i.e., giving small businesses an uphill battle to innovation with the FTF system.<sup>45</sup>

With the change from FTI to FTF, the US has harmonized its patent system with the rest of the world. This gives rise to many possibilities, including the potential for increased international

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<sup>40</sup> Dan Brutto, *Small Business, Big World* (2009), online: <<http://www.forbes.com/2009/03/23/small-business-international-opinions-contributors-trade-markets.html>>.

<sup>41</sup> R.E. Hamlin and T.S. Lyons, *Financing Small Business in America: Debt Capital in a Global Economy* (Praeger, 2003) [Hamlin] at 5.

<sup>42</sup> C.L. Cooper and R.J. Burke, *Human Resource Management in Small Business: Achieving Peak Performance* (Edward Elgar, 2011) [Cooper] at 201.

<sup>43</sup> J.G. Longenecker et al, *Small Business Management: An Entrepreneurial Emphasis* (Thomson/South-Western, 2006) at 382.

<sup>44</sup> Cooper, *supra* note 42.

<sup>45</sup> Hamlin, *supra* note 41 at 7.

trade agreements. Discussions are well underway between the United States and the European Union for an international trade agreement, called the Transatlantic Trade and Investment Partnership. These negotiations will likely be eased on the basis of similar patent systems between the countries/entities (especially with the recent changes with the AIA). They also share a mutual intent on ensuring compliance with intellectual-property rights.<sup>46</sup> Such an agreement, although not necessarily dictated by similar patent systems, will help contribute to growth and jobs in both the US and the European Union.<sup>47</sup> Harmonization between the US patent system and the European Union's patent system has reduced the number of policy parameters that exporters must consider when making trade decisions.<sup>48</sup> Although harmonization with other countries could potentially open new doors for trade agreements, the benefits might be balanced out by the negative impacts of an FTF patents system on small businesses and entrepreneurs. The full extent of these implications will likely not be measurable until the AIA and its various provisions have been in place for some time, and ample data is available for analysis.

NPEs ("patent trolls") are known to negatively affect both innovation and economic growth. The cost implications, on average, of patent litigation matters brought about by NPEs can range from \$650,000 up to \$5 million. These costs have added an overwhelming burden to the innovation environment in the US. These cases also negatively impact those firms that practice patents, lost opportunities to promote and commercialize inventions, and much larger (and hard to quantify) costs of denying innovation to consumers and the society-at-large.<sup>49</sup> NPEs are often involved in

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<sup>46</sup> Zaki Laidi, *Lessons from the EU: who benefits from exclusive trade agreements?*, *The Globe and Mail*, online: <<http://www.theglobeandmail.com/report-on-business/economy/canada-competes/lessons-from-the-eu-who-benefits-from-exclusive-trade-agreements/article13284428/>>.

<sup>47</sup> European Commission, *Trade: United States*, online: <<http://ec.europa.eu/trade/policy/countries-and-regions/countries/united-states/>>.

<sup>48</sup> Keith E Maskus, *The global effects of intellectual property rights: measuring what cannot be seen* (2000), *Intellectual Property Rights in the Global Economy* 87 at 111.

<sup>49</sup> Executive Office of the President, *Patent Assertion and U.S. Innovation* (2013), online: <[http://www.whitehouse.gov/sites/default/files/docs/patent\\_report.pdf](http://www.whitehouse.gov/sites/default/files/docs/patent_report.pdf)> [Executive] at 9.

suits, or even threats of legal action, that are debilitating to small start-ups companies. In fact, a recent survey highlighted that forty percent of companies targeted by NPEs reported significant impacts to their operational activities. These targeted companies had to sometimes change business, change markets, delay projects or even change products, to avoid costly and lengthy legal matters with these NPEs.<sup>50</sup> The significant costs and time that are lost during these cases involving NPEs likely have a significant impact on innovation, and subsequently affect the likelihood that US businesses can compete on in the global economy. By bringing the AIA into force, the US government has demonstrated a willingness to address the effects of NPEs on innovation and trade, both with the new administrative procedure for business process patents and with the new limitations on joinder of multiple defendants in patent litigation cases.

There is a particularly strong link between trade and innovation. A study by the Organization for Economic Co-operation and Development<sup>51</sup> stated that innovation helps develop technological advantages for companies, which helps drive international trade. The author, Onodera, found that those companies that are more innovative and productive tend to be the ones to export their products, make foreign investments, or license their technologies to gain financial benefits from their innovations.

## **V. Conclusions and Recommendations**

The *America Invents Act* brings into effect the most significant changes to the US patent system in over sixty years. Modernization and harmonization of the patent system was encouraged by the extensive lobbying activity that took place with costs soaring to at least \$400 million for this act. The true impacts of all the changes are yet to be known since many of them only came into

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<sup>50</sup> *Executive*, *supra* note 49 at 10.

<sup>51</sup> Onodera, Osamu, *Trade and Innovation Project: A Synthesis Paper* (2008), online: <<http://www.oecd.org/finland/41105505.pdf>> at 12.

force in March 2013, and there has been little studies done using actual data. However, many researchers have formulated hypotheses based on historical data from other patent systems across the World, particularly in the European Union, Japan and Canada.

One hypothesis is that the implementation of the FTF patent system in the US will favour larger companies, given they have a great chance of having access to resources to quickly turn inventions into applications. Since small businesses form the backbone of the US economy, and are attributable to over fifty percent of all innovations, the USPTO should closely monitor how the changes to the patent system will impact small businesses. The US will want to avoid harming or increasing barriers for these companies to ensure they continue to be successful both locally and globally.

By implementing limitations on the joinder of multiple defendants, as well as the addition of new administrative processes allowing challenges to broad business process patents, the US government has taken large strides in strengthening their patent system. By doing so, they will limit the disruptive nature of NPEs that result in loss of innovation and significant financial windfalls for targeted companies. The USPTO should continue to monitor NPEs, and ensure that their impacts on innovation and trade are limited.

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